

**Gravatt, Dan**

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**From:** Kiefer, Robyn V NWK <Robyn.V.Kiefer@usace.army.mil>  
**Sent:** Thursday, July 24, 2014 9:34 AM  
**To:** Gravatt, Dan  
**Subject:** Trip Report (UNCLASSIFIED)  
**Attachments:** Trip Report West Lake CAG July 21 2014.pdf

Classification: UNCLASSIFIED

Caveats: NONE

Dan - attached is my Trip Report from Monday's CAG. Let me know if you have questions.

Thanks,  
Robyn

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Classification: UNCLASSIFIED

Caveats: NONE

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Superfund

MEMORANDUM FOR: FILE

DATE: 23 July 2014

FROM: Robyn Kiefer, PM-ES

SUBJECT: Trip Report – West Lake Landfill Superfund Project – Community Advisory Group (CAG) Meeting, Monday, July 21, 2014

CC: PM-E (Young, Fraley, Lyle)  
ED-E (Leibbert)

1. Reference is made to the Westlake Landfill project in which USACE is providing technical support to EPA Region 7 (EPA) under Interagency Agreement (IA) DW96958582. The IA became effective on 15 April 2014. EPA has been serving, and continues to serve as the lead federal agency for the site. USACE was initially to provide technical assistance in the form of work plan and design reviews, construction observation support to the EPA On-Site Coordinator, and community relations support with respect to those activities associated with the isolation barrier. However, the technical assistance has recently expanded by EPA asking USACE to provide isolation barrier alignment option advantages and disadvantages and for community relations support in areas beyond the isolation barrier (general health physicist support). The public has significant concern with EPA's handling of the WLLF Superfund investigation. Following are my notes taken during the trip.
2. The purpose of the trip was to provide community relations support to EPA by attending a meeting of the Westlake Landfill Community Advisory Group (CAG). The CAG is a group of public citizens who share similar concerns about the state of the project and perceived risks to the public health stemming from the landfills. I met with EPA, Scott Young, and Mike Petersen at approximately 5:15 pm at a previously designated rendezvous point. The following EPA/USACE/ATSDR personnel were present, all of which attended the CAG meeting:

Robyn Kiefer, CENWK-PM-ES, USACE PM	Jeff Fields – EPA Branch Chief for MO & KS
Scott Young, CENWK-PM-E	Dan Gravatt – EPA PM
Mary Peterson – EPA Deputy Branch Chief PA	Ben Washburn – EPA Community Involvement Coordinator
Denise Jordan-Izaguirre – ATSDR Region VII Regional Director	Mike Petersen, CEMVS, Chief, Public Affairs
Todd Campbell – EPA On-Site Coordinator for BMAC	Tom Mailer – EPA On-Site Coordinator for BMAC

3. The CAG meeting started at approximately 6:30. There were approximately 80 people in attendance, excluding CAG officers, EPA, and USACE personnel. The following Federal and State Congressional representatives and local representatives were present.

Joeana Middleton, Regional Director for SEN McCaskill  
Kerry DeGregorio, Constituent Advocate, SEN Blunt

Jordan Pierce (?), Representative for Congresswoman Ann Wagner  
 Harvey Ferdman, Policy Advisor to MO State Rep Bill Otto  
 Bill Ray, St. Louis County Executive  
 Steve Stenger, St. Louis County Council  
 Linda Richardson, Bridgeton City Council  
 Several other Bridgeton City Council members

4. The CAG president conducted their normal business. Two items of interest were noted:
  - The CAG President read a statement regarding the CAG Executive Committee's response to the EPA's statements regarding BMAC. The statement is attached to this Trip Report and essentially states that EPA's statement that the BMAC facility is safe to use is misleading and concludes that EPA is not concerned with the safety of the community and requests that another federal agency conduct testing at BMAC. The CAG suggests that the FUSRAP program conduct the study.
  - A CAG member made a motion for the CAG to send a letter to the State and Congressional representatives citing no confidence in EPA and request that EPA R7 Administrator Karl Brooks be removed from his position and that an investigation be conducted on EPA's handling of the West Lake Superfund investigation. The motion passed 14-0. Reasons for no confidence were: investigation took too long, there are offsite levels of radiation, and they want a proactive, not reactive approach.
5. Mike Smiley, St. Louis County Police Department, Director of the Office of Emergency Management, provided info to community on the contingency plan should there be an incident at West Lake. Following are the key points of the presentation:
  - West Lake-specific contingency plan is still under development. The contingency plan covers a surface fire that has airborne RIM in a plume extending over businesses and nearby community
  - Standard emergency response procedures in place to cover any incident until that occurs.
  - Several Q&A conducted regarding emergency-response-specific issues.
6. Todd Campbell, EPA On Site Coordinator, provided information on what sampling was done at the BMAC complex and background locations of Koch Park and Blanchett Parks. Following is key information presented:
  - 3 EPA teams took 58,716 gamma readings at the 3 sites.
  - Koch Park and Blanchett Park were selected as background sites because they were approx 4 miles away and had similar use as BMAC.
  - 45 miles of transectal survey
  - Gamma Scintillator functional test conducted before the initial survey and before each day and after each day of work
  - First day, all 3 teams tracked behind each other and data was standardized
  - 2 part analysis – qualitative screening, followed by lab analysis.
  - Qualitative screening information is available and was presented. Highest reading identified at BMAC was 30,300 cpm. Lowest reading identified was 10,000 cpm.

- Surface soils at depth of 2" were taken (some taken at highest screening level areas and some taken at lowest screening level areas) and were submitted to a laboratory. Data is currently undergoing QC review and is expected to be available by the end of the month.
- Rule of thumb in reviewing qualitative screening data is that 2 x the average background count is usually indicative that there is not an impact issue. None of the screening data indicated there is an issue. Lab results will confirm.
- Q&A followed:

Q: Will you be taking a sample inside West Lake Landfill to compare the BMAC test to it?

A: The plan was to compare the BMAC sample with Koch park and Blanchett park samples as background, not to compare it with West Lake. Will go back and ask if the sample will be compared to a West Lake sample.

Q: To help put the screening levels in perspective, what would you see in another city for these screening levels of 10,000 cpm or 30,000 cpm?

A: This is a 2-part analysis – first you do the screening level, then you do the lab sample. The lab sample is what you can compare to other locations. Also, the cpm read by one machine is different than the next machine because each picks up gamma radiation over a large range and the sensitivity of each machine can be different. That's also why we take lab samples to verify results. It helps us to know that the screening equipment works and detects at the levels we need it to. Screening is part of the picture – it only helps us find elevated gamma. It doesn't test for specific nuclides.

Q: Who's decision was it to use Koch and Blanchette Park?

A: It was the EPA team's decision. They were chosen because they were close enough but not too close and had similar use to BMAC.

Q: You knew that Koch Park was adjacent to a haul road for Coldwater Creek. I (Dawn Chapman) was out on site with you before you started sampling and told you that Koch Park was next to a haul road. And also told you that it could cause questioning of your results. Why would EPA go ahead and sample this? Did you ask the Corps about sampling this site? There is Karst underneath the site and groundwater with radionuclides in this area.

A: There was a lot of discussion in the room and I didn't hear the answer other than EPA did not discuss this with the Corps.

Q: 30,000 cpm is your background reading for gamma. My (Kay Drey) research shows that 20 cpm is the natural background reading for gamma in this area.

A: 30,300 cpm is the highest reading we had on site, not the background reading. If you have information that states a background reading of 20 cpm, then it should be coupled with a specific device. Each device reads a voltage. The voltage doesn't relate to an amount of energy, so you need to look at the device.

7. Prior to the meeting, the CAG had submitted several questions in writing to EPA and requested responses. There was no time for Dan Gravatt to read prepared responses to each question, so he provided the responses to the CAG to disseminate to CAG members. (see attached). Dan also provided a copy of EPA's response to the RP's draft Pre-Construction Work Plan, including all comments.
8. Next CAG meeting is August 11.
9. The meeting was adjourned at approximately 9 pm
10. After the meeting, Mike Petersen and I had a discussion with a couple members of the community who had questioned why EPA took samples at BMAC at 2" depth when they replace the dirt at the ball fields and why they didn't sample deeper. Even though EPA's presenters explained this, we attempted to further explain that when kids are playing on the ball fields, if any contamination is present, it would be inhaled on dust particles that are kicked up from the ground surface. We asked what occurred when soil was added to the fields, the community member said they dragged it and mixed it in with the existing soil. The community member stated that a kid would go 2" into the dirt if he slid into a base (meaning that he thought EPA should have tested deeper). We pointed out that if he slid, the kid would be kicking up all that dust in the upper 2" of dirt and that is what would be in the air and being inhaled. The community member agreed. We explained that what was done was a valid way to test to ensure there was no exposure to contaminants and that the kids wouldn't likely be exposed to the soil below 2" because the activities conducted at the ball fields don't typically cause disruption to the soil below 2". They seemed to accept this explanation.
11. Other community members came up to Mike and me after the meeting and Dawn Chapman stated that she didn't understand why EPA didn't talk to the Corps prior to sampling. I stated that for the current Interagency Agreement, the scope is narrow and deals with support for the Isolation Barrier, so that is likely why they didn't discuss it with me. Dawn stated that they should have at least called FUSRAP. Mike and I both pointed out the good news is that they will know what the concentrations are at Koch Park.
12. I left the venue at approximately 9:20 pm. I returned to Kansas City on Tuesday, July 23 and was on leave the remainder of the day.

Respectfully Submitted,

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Digitally signed by KIEFER.ROBYN.V.1271182852  
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI,  
ou=USA, cn=KIEFER.ROBYN.V.1271182852  
Date: 2014.07.24 09:03:21 -05'00'

Robyn Kiefer  
Project Manager

**West Lake/Bridgeton Landfill Community Advisory Group Executive Committee  
Response to Environmental Protection Agency's Proclamations Regarding the  
Bridgeton Municipal Athletic Complex**

West Lake/Bridgeton Landfill Community Advisory Group (CAG) Executive Committee notes that the United States Environmental Protection Agency (EPA) Region 7 has not held up its responsibility to protect human health and the environment at the Bridgeton Municipal Athletic Complex (BMAC). EPA region 7 has presented misleading information to the public, failed to follow standards that they themselves implemented for testing of a potentially radiologically impacted site, and ignored sound data. We have examined EPA Region 7 claims and statements and it is the conclusion of this committee that EPA should no longer have a role in testing or remediation at BMAC. We formally request that another federal agency re-examine the BMAC site for radiologically impacted material.

While our CAG is primarily concerned with the West Lake Superfund Site, BMAC shares the same community as West Lake Landfill, and in our role as representatives of the community we must speak to these issues as well as those at the West Lake Landfill. The radioactive materials illegally dumped at the West Lake Landfill in 1973 come from a greater problem in the St. Louis Metropolitan Area. These contaminants were not only created in the St. Louis Area but were improperly handled, leaving radioactive material spread across a wide area running from Downtown St. Louis through North St. Louis County and into St. Charles County. These materials are dangerous, spread throughout the area by mishandling and improper transportation, and new sites are still being tested and remediated. A number of these sites are currently being remediated by the United States Army Corps of Engineers (USACE) working in the area under the Formerly Utilized Sites Remedial Action Program (FUSRAP) at a cost of \$1.7 Billion.

The area around BMAC has changed greatly over the last 72 years. From 1942 to 1973, the majority of the radioactive materials were being transported down St. Charles Rock Road, the primary haul route, not only to West Lake Landfill in 1973 but to and from St. Charles County, where Weldon Spring Uranium Feed Mill Plant was located. With the history of improper transportation used in the transfer of materials to and from Weldon Spring and the known improper transportation used in the transfer of materials to West Lake Landfill, it is not only reasonable to suspect but probable that the area around St. Charles Rock Road is contaminated by these same radioactive materials. While the EPA Region 7 assures the public that radioactive waste along the areas of concern along St. Charles Rock Road are below background levels, the Missouri Department of Natural Resources (MDNR) test they cite as proof states that the waste is in fact are at levels higher than background. (MDNR Standard Level IV Report of Analysis Work Order #05-08095-OR; September 14, 2005)

The CAG Board has found statements and information provided by the EPA Region 7 to be misleading regarding BMAC. Our immediate observation is that the EPA Region 7 made claims of safety prematurely. EPA Region 7 Director Karl Brooks stated, "There is no evidence available to the EPA or DNR that establishes any reason to change the use of

the fields," (Post-Dispatch; Bridgeton Ball Fields to Remain Open During Radiation Testing; May 9, 2014) In fact, there had been testing that had shown evidence that there were elevated levels of radionuclides. This testing was submitted by the Just Moms STL group. Director Brooks has repeatedly criticized the Just Moms STL testing calling it, "...questionable protocol and analysis" (Post-Dispatch) and during his press conference on May 9, 2014 said that the test by the Moms group was not scientifically legitimate. While attempting to invalidate concerns about BMAC, Dr. Brooks and the EPA have cited 3 tests. None of these tests invalidated the results submitted by the Just Moms STL group.

The first test cited by the EPA is a 2013 MDNR test which is the only test, other than Just Moms STL, which has physically taken samples at BMAC. EPA Region 7 criticized the Moms group testing saying, "the individuals collected the soil from a drainage ditch and not from the ball fields." (EPA Statement on West Lake Landfill April 30, 2014) This statement is not accurate. The Moms group did take samples from the ball fields and the drainage ditch, and results showed areas of serious concern. MDNR, however, only tested two areas: "pavement" and a "grass island" in the parking lot. (MDNR; Westlake Landfill Radiological Survey; May 16, 2013) This is not the only problem using this test to declare BMAC safe. "The objective of this survey was to collect radiological readings upwind and downwind from the site using odor as an indication of downwind direction." (MDNR) In other words the test was for contamination of air not soil. That is why MDNR took dust samples instead of soil samples. The MDNR test was never designed or intended to check for radioactive contamination in BMAC soil and it was misleading of the EPA Region 7 to indicate that it was.

The second test which was mentioned by Director Brooks and EPA is a survey of St. Charles Rock Road performed by the MDNR in 2005. (MDNR Standard Level IV Report of Analysis Work Order #05-08095-OR; September 14, 2005) This test clearly shows radioactive contamination well above background but below remediation levels. The testing never sampled inside of BMAC. While this test cannot be used in one way or another to provide a statement about the condition of radioactive contamination at BMAC it nonetheless demonstrates the nearby contamination of St. Charles Rock Road and is misleading to use it as a declaration of safety.

The third test cited by the EPA was performed by FUSRAP under the Department of Energy's guidance. This is an actual example of testing which is not scientifically legitimate. The truth is there is neither data nor samples to validate this report. When attempting to locate the raw data which was used to construct this report under the Freedom of Information Act the USACE responded, "A diligent search was completed by the Corps personnel and Corps contractor employees and the raw data was not part of the custodial documents..." (letter titled: Response to Freedom of Information Act Request FA-14-0039; June 20, 2014)

The CAG Executive Committee finds the citation of these tests and the declaration of safety before the completion of testing at BMAC purposefully misleading and not in keeping with the EPA's mission which clearly states' "all parts of society -- communities,

individuals, businesses, and state, local and tribal governments -- have access to accurate information sufficient to effectively participate in managing human health and environmental risks." (Our Mission and What We Do; EPA website)

During scrutiny of the EPA's report entitled PRELIMINARY PRE-CERCLIS SCREENING REPORT BRIDGETON MUNICIPAL ATHLETIC COMPLEX BRIDGETON, MISSOURI, the committee found concern with methods used to perform gamma scans at BMAC. The use of a sodium iodide scintillation detector for a site survey requires several steps to ensure accuracy. The first observation regarding testing is that sodium iodide scintillation detectors for low count rate testing like BMAC can have a, "...reading error of 50%." (U.S. Environmental Protection Agency: Multi-Agency Radiation Survey and Site Inspection Manual (MARSSIM), Revision 1. EPA 402-R-97-016, Rev. 1. August, 2000) The Multi-Agency Radiation Survey and Site Inspection Manual (MARSSIM) cited by the EPA in their report goes on to tell us that, a sodium iodide detector's... "energy response is not linear, so it should be calibrated for the energy field it will measure or have calibration factors developed by comparison with a PIC for a specific site. This check should be performed often, possibly several times each day." Nowhere in the EPA report or attached log books was the mention of ever calibrating the machine to a site specific survey by a PIC (Pressurized Ion Chamber). If proper use of the sodium iodide detector was not done it reduces the 58,716 data points in the EPA report to the accuracy of a coin toss.

The release of a report without all testing completed again has the EPA publically proclaiming the safety of our community at BMAC without all the facts. The report was rushed to public announcement before it had raw data or test results from the soil samples. The soil samples were gathered between May 21<sup>st</sup> and May 23<sup>rd</sup>. (PRELIMINARY PRE-CERCLIS SCREENING REPORT BRIDGETON MUNICIPAL ATHLETIC COMPLEX BRIDGETON, MISSOURI; EPA; June 21, 2014) There has been adequate time for an analysis and report from the lab contracted with EPA to be delivered. The EPA was premature in releasing the following statement; "The ball fields remain suitable for use, said Karl Brooks, a regional administrator for the EPA. "All current uses are appropriate at that park," including the city of Bridgeton's planned Fourth of July fireworks and celebration, Brooks said." (EPA: No public health risk from radiation at Bridgeton sports complex; Post-Dispatch; June 26, 2014) The committee feels that the testing and supporting documents provided by EPA Region 7 concerning BMAC should be given great scrutiny before acceptance.

Like the EPA and our elected officials, the CAG was notified by the Just Moms STL group of their independent testing at BMAC and of the lab results these tests generated. The most striking thing about the Just Moms STL group tests are the high levels of Lead-210 found in their samples. The testing was conducted by Eberline Labs in Oakridge Tennessee. Eberline found Lead-210 at 9.1 pCi/g and 10.8 pCi/g in the two samples the Moms group provided. (Standard Level IV Report Analysis Work Order #14-05116-OR; Eberline Analytical/Oak Ridge Laboratory; June 26, 2014) Eberline Labs offered the information that the Army Corps of Engineers set a human health limit of 0.846 pCi/g above a background of 1.6 pCi/g during the cleanup of a site near Dayton, OH. (SITE



INSPECTION REPORT DAYTON UNIT III CITY OF DAYTON MONTGOMERY COUNTY, OHIO; USACE; December 2004)

The EPA has plainly stated that they are looking for radium, thorium and uranium, yet they are not looking for Lead-210 at BMAC. The Just Moms STL group notified the EPA of the testing and resulting finding of Lead-210. If EPA was unwilling to accept the Eberline Lab findings FUSRAP has also found a mixture of Radium-226, -228; Thorium-230, -228, -232; Uranium-234, -235, -238; Lead-210; Protactinium-231; and Actinium-227 in the wastes associated with North St. Louis County. (RECORD OF DECISION FOR THE NORTH ST. LOUIS COUNTY SITES; USACE St. Louis District Office; September 2, 2005) A thorough examination of radionuclides in this area would include at a minimum the full list provided by FUSRAP including Lead-210.

Because of the facts stated in this document, the West Lake/Bridgeton Landfill CAG Executive Committee discerns EPA Region 7 to be lacking in its responsibility to protect our community. Director Brooks was dismissive of valid community concerns. With no facts to support a conclusion of community safety Director Brooks publically declared BMAC safe. The testing conducted on behalf of our community by EPA was not satisfactory as it was never designed to look for the areas of concern initially raised by the community. The lack of respect given to the safety of this community by EPA Region 7 obliges the Executive Committee to request another federal agency conduct testing at BMAC. As BMAC is most probably a vicinity property resulting from years of transportation of radioactive materials for United States atomic weapons programs the Committee suggests a study performed by FUSRAP.

MDNR Standard Level IV Report of Analysis Work Order #05-08095-OR; September 14, 2005

[http://www.dnr.mo.gov/env/hwp/fedfac/fusrap/docs/2005fusrap\\_nc\\_lab\\_results0508095.pdf](http://www.dnr.mo.gov/env/hwp/fedfac/fusrap/docs/2005fusrap_nc_lab_results0508095.pdf)

Post-Dispatch; Bridgeton Ball Fields to Remain Open During Radiation Testing; May 9, 2014 [http://www.stltoday.com/lifestyles/health-med-fit/health/bridgeton-ball-fields-to-remain-open-during-radiation-testing/article\\_9742db15-730c-5079-9701-7834466a0e59.html](http://www.stltoday.com/lifestyles/health-med-fit/health/bridgeton-ball-fields-to-remain-open-during-radiation-testing/article_9742db15-730c-5079-9701-7834466a0e59.html)

EPA Statement on West Lake Landfill April 30, 2014

<http://yosemite.epa.gov/opa/admpress.nsf/0/2EC905D19549AC7185257CCA007E9558>

MDNR; Westlake Landfill Radiological Survey; May 16, 2013

<http://www.dnr.mo.gov/env/hwp/fedfac/documents/2013-5-16-westlake-rad-survey-reportl.pdf>

Response to Freedom of Information Act Request FA-14-0039; June 20, 2014

Our Mission and What We Do; EPA website <http://www2.epa.gov/aboutepa/our-mission-and-what-we-do>

**PRELIMINARY PRE-CERCLIS SCREENING REPORT BRIDGETON MUNICIPAL ATHLETIC COMPLEX BRIDGETON, MISSOURI; EPA; June 21, 2014**  
[http://epa.gov/region7/cleanup/west\\_lake\\_landfill/pdf/bridgeton-municipal-athletic-complex-prelim-report.pdf](http://epa.gov/region7/cleanup/west_lake_landfill/pdf/bridgeton-municipal-athletic-complex-prelim-report.pdf)

**U.S. Environmental Protection Agency, Multi-Agency Radiation Survey and Site Inspection Manual (MARSSIM), Revision 1. EPA 402-R-97-016, Rev. 1. August, 2000**  
<http://pbadupws.nrc.gov/docs/ML0037/ML003761445.pdf>

**EPA: No public health risk from radiation at Bridgeton sports complex; Post-Dispatch; June 26, 2014** [http://www.stltoday.com/lifestyles/health-med-fit/health/epa-no-public-health-risk-from-radiation-at-bridgeton-sports/article\\_71c7d19a-339e-5bcc-973a-44386f574fb8.html](http://www.stltoday.com/lifestyles/health-med-fit/health/epa-no-public-health-risk-from-radiation-at-bridgeton-sports/article_71c7d19a-339e-5bcc-973a-44386f574fb8.html)

**Standard Level IV Report Analysis Work Order #14-05116-OR; Eberline Analytical/Oak Ridge Laboratory; June 26, 2014**

**SITE INSPECTION REPORT DAYTON UNIT III CITY OF DAYTON MONTGOMERY COUNTY, OHIO; USACE; December 2004**  
<http://www.lrb.usace.army.mil/Portals/45/docs/FUSRAP/DaytonIII/day3-si-2004-12.pdf>

**RECORD OF DECISION FOR THE NORTH ST. LOUIS COUNTY SITES; USACE St. Louis District Office; September 2, 2005**  
[http://www.mvs.usace.army.mil/Portals/54/docs/fusrap/docs/Final\\_ROD\\_linked.pdf](http://www.mvs.usace.army.mil/Portals/54/docs/fusrap/docs/Final_ROD_linked.pdf)

#### Questions for EPA and ATSDR – July 8, 2014

1. EPA has stated "EPA has extensive analytical results for the materials actually present in the West Lake Landfill, and the results are appropriate for use in remedy selection." Does EPA think that this statement is still true? Is any additional soil, ground water or air sampling going to be required of the PRPs or done by EPA before EPA decides on whether there will be a ROD amendment and new proposed plan?

Answer: EPA stands by this statement. As part of the RI/FS process, dozens of soil borings were installed and sampled, dozens of ground water monitoring wells were sampled, surface gamma scans were performed, and dozens of down hole gamma logs were taken. This extensive body of analytical data informed the 2008 ROD. No additional sampling of soil, groundwater or air for the purposes of the Supplemental Feasibility Study or the new proposed plan for a ROD amendment are planned at this time.

2. EPA has stated that the Bridgeton Municipal Athletic Complex (BMAC) is "Suitable" for use. I would like to know if the EPA has determined that BMAC is "Safe" for use? I would like EPA to make a presentation to the CAG to include visual diagrams of the sampling locations at BMAC, laboratory results from samples taken at BMAC, regulatory limits for radioactive isotopes for recreational areas used by children, and EPA's calculation of the health risks associated with exposure to surface soil at BMAC.

*[The CAG Board concurs that a presentation by EPA on this topic would be helpful.]*

Answer: The lab results from the soil sampling effort are needed in order to draw definitive conclusions regarding health implications and the relative "safety" of the park. The term "safe" is very broad and extends beyond environmental concerns, therefore it is not appropriate for EPA to use. EPA plans a presentation on the recent BMAC sampling at the July CAG meeting. However, the final report containing the results of the soil sampling is expected to be released in August.

3. Has the EPA decided yet if they will retest the areas along St. Charles Rock Road that MDNR found to have thorium 230 exceeding the background level in 2005? Will surface soil containing thorium 230 above the background level be removed from St. Charles Rock Road?

Answer: EPA has no plans to retest these areas or any of the haul roads. All of the results from MDNR's 2005 sampling were below the cleanup standards established for the SLAPS sites; therefore, based on MDNR's sample results, the soil in these areas does not pose any unacceptable risks.

Also, now that there is proven "scientific" evidence showing that Thorium 230 is OFFSITE, will the EPA retest any haul routes to the landfill not tested under the FUSRAP program and all areas around the perimeters of OU1 to check for thorium 230 and other West Lake Landfill contaminants that may have been spilled or spread as the contaminated materials were moved around prior to control of the site by EPA or that migrated due to wind or other factors after placement in OU1.

Answer: The presence of thorium at the locations sampled by MDNR along St. Charles Rock Road does not prove that the thorium migrated to those locations from West Lake Landfill. It is possible that these materials were deposited there in the same manner that they were deposited

throughout the SLAPS sites, by falling off of trucks transporting RIM through the area. The levels of Thorium 230 were below the established cleanup standards. Therefore, EPA has no plans to test the haul roads or other perimeter areas around OU1.

4. Is there an expected time table for the EPA's Remedy Review Board to make its decision about the 2008 ROD at West Lake? In general, when might a decision be anticipated?

Answer: There is no established time table for this decision. Additional investigatory work and feasibility study evaluations are still being conducted pursuant to NRRB comments.

5. If Cotter Corp / B&K had not dumped the rad waste at West Lake Landfill, would either West Lake Landfill and/or Bridgeton Landfill be a Superfund site? If so, why and what is being done to address those issues? In other words, are there non-radiological contaminants at either of these landfills that would cause them to be Superfund sites and how will the non-radiological contamination be remedied?

Answer: The RI/FS and the Record of Decision for OU-1 fully considered non-radiological contaminants in OU-1 and selected a remedy that would protect the public from all contaminants in OU-1, not just radiological contaminants. Any future remedial decisions made pursuant to the forthcoming proposed plan for a ROD Amendment would likewise consider and be protective for all contaminants in OU-1.

6. When Jeffrey Field stated that Region VII EPA believes that the release of documents is consistent with transparency objectives and past practices on releasing information relevant to the public, who makes the determination as to relevancy? The 2012 NRRB information regarding West Lake is still not publicly available. As it is currently July 2014, why is a 2012 report being suppressed from the public, when tax payers are the ones that pay for the determination of how germane the information is? Excluding any supplemental or addendums or amendments, is the 2012 review complete, and when will it become publicly available? Please explain.

Answer: EPA's review process for the release of records typically involves two-steps. First, records are reviewed by the Site's project manager to determine if they are responsive to the request. The records that are determined to be responsive are then submitted to an attorney in EPA's legal office for review. The attorney will determine whether the record should be released, applying the exemptions set forth in the FOIA. The NRRB recommendations from the 2012 "early consultation" with Region 7 were determined by EPA to be intra-agency communications which fall under the "deliberative process" privilege provided in Exemption 5 of the FOIA. A purpose of this exemption is to "prevent injury to the quality of agency decisions" by ensuring that open, frank communications among agency staff are encouraged and protected. It is not expected that these records will be released. More information on the FOIA and its exemptions can be found in the U.S. Department of Justice's Guide to the Freedom of Information Act, available at [http://www.justice.gov/oip/foia\\_guide09.htm](http://www.justice.gov/oip/foia_guide09.htm).

The CAG Board would like EPA to make a presentation about the NRRB review process, using visual aides to make the process clear. Also, please answer these questions:

- Why are some Superfund projects reviewed by the NRRB and some are not?
- EPA has used the term "monetary expenditures in excess of \$25 million" when discussing the need for NRRB review. What does this exactly mean?

- Is there any means by which the CAG can obtain a copy of the 2012 NRRB report?
- Did the fire in the Bridgeton Landfill affect the 2012 NRRB decision?  
Answer: EPA would be glad to make a presentation at the CAG on how the NRRB review process works.

[<http://www.epa.gov/superfund/programs/nrrb/reviewcr.htm>]

#### Review Criteria

##### Board Review Criteria

The Board will typically review proposed interim and final Superfund response decisions at both NPL and non-NPL (including Superfund Alternative) sites for which the proposed:

- Remedial action costs more than \$25 million; or
- Non-time critical removal actions (NTCRA), at sites other than a federal facility, is estimated to cost more than \$25 million; or

Board reviews will also occur for NPL and non-NPL sites following changes made after the release of the proposed plan:

- A different or modified alternative (which was included in the original proposed plan) is selected by the region that costs more than 20 percent when compared to the original proposal and these costs trigger review criteria (even when the earlier proposed action had undergone Board review).
- A new alternative is developed and the costs of the new alternative would trigger a review.

The Board may review (at regional discretion) sites where the proposed action's original cost estimate increases more than 20 percent after issuance of the Proposed Plan due to either updated cost information or minor changes to the alternative that trigger review criteria. Examples of minor changes are presented in Chapter 7 of *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, Office of Solid Waste and Emergency Response Directive No. 9200.1-23P, July 1999 (ROD guidance).

##### Federal Facility Sites (other than the Department of Energy)

Federal facility sites (including Formerly Utilized Sites Remedial Action Program- FUSRAP) follow the same review criteria above with the exception of NTCRAs; federal facility NTCRAs do not undergo Board review unless requested by the federal facility. Decisions at Base Realignment and Closure (BRAC) sites do not undergo Board review.

##### Department of Energy Sites

The NRRB typically will review sites where the primary contaminant is radioactive waste and the proposed remedial action costs more than \$75 million. The Board will also review NPL sites with NTCRAs exceeding \$30 million involving primarily radioactive waste; (per joint Department of Energy/EPA memorandum dated October 5, 1998).

- In answer to the last bullet, no, the "fire" was not considered in the NRRB evaluation. At the time of the NRRB presentation in February 2012, the SSE in the South Quarry Landfill had only

been identified for a little over one year and did not appear to have any relationship to the management of RIM in OU-1.

7. The calculation of 'background' radiation is considered by the EPA to be comparable to levels of 'background' that the exact site demonstrated at a previous time, or a similar "clean" site nearby demonstrates. Given that St. Louis has multiple FUSRAP sites still being remediated from man-made non-natural local radioactive pollution; can the EPA designate a 'background' number that is more protective of human health from a site of similar geology and not near St. Louis? Please explain the basis for the background sampling, and also include why limits in reports are already adjusted for 'background' instead of listing each value individually.

Answer: Background samples are obtained for substances that occur naturally to determine if a "release" has occurred for HRS scoring purposes. Pursuant to the HRS scoring guidance, in order to document that there are releases of naturally substances, concentrations greater than three times the background concentrations are required in order to document that a release has occurred. This protocol only pertains to documentation of a release of contaminants for HRS scoring purposes and is not utilized to calculate risks or cleanup goals.

8. Is it possible to modify the Baseline Health Risk Assessment used to inform the EPA's 2008 Record of Decision? If so, how does the process work for revising the BHRA? If no, how does EPA Region 7 plan to include the known risk (identified by EPA's ORD) of radioactivity moving offsite (airborne) due to a smoldering landfill fire and that possible impact on people's health?

Answer: A risk assessment involves three key steps: characterizing the exposure to a contaminant (both exposure pathways and concentrations of the contaminant in various environmental media), evaluating the toxicity of the contaminant and calculating a numerical risk value based on that data. Because it is not possible to accurately predict whether, and how, a SSE may occur or interact with RIM, the exposure component of the risk assessment cannot be quantified. As a result, the baseline risk assessment cannot reflect such risks. However, ORD's review of the PRP's SSE report **qualitatively** evaluates the potential future risks related to an SSE contacting RIM.

9. Does EPA Region 7 consider the possibility for future property damage/loss to nearby residents and businesses in its decision making process for the ROD Amendment?

Answer: No, EPA lacks the legal authority to consider such damages. Pursuant to the Superfund law (CERCLA), EPA has the legal authority to respond to releases, or substantial threats of releases, of hazardous substances into the environment. The factors that EPA must consider for remedy selection purposes is dictated by the statute, and the National Oil and Hazardous Substances Pollution Contingency Plan, specifically the nine criteria set forth in 40 C.F.R. § 300.430. CERCLA does not provide a means for EPA or private parties to compel the payment of, or recover damages associated with personal injury, diminution in property value, "stigma damages," lost profits, lost rents, or other damages that are frequently associated with contaminated property.

10. What exactly is happening regarding communications/planning for the actual isolation barrier? It appears the barrier will be a wall and not a trench based on the revised pre-construction work plan that EMSI submitted to EPA Region 7 on June 20, 2014. How and when was this decided?

Does EPA Region 7 and/or the Corps of Engineers have meetings with EMSI/Republic Services to discuss the isolation barrier? Please provide a detailed update at the July 21 CAG meeting.

Answer: EPA coordinated with USACE under our Interagency Agreement, which was signed in April 2014, to identify potential alternatives for constructing the barrier, and EPA and USACE subsequently met with EMSI and Republic Services representatives to discuss these alternatives. USACE is preparing a technical feasibility assessment of the alternatives for EPA. The specific construction technologies that will be used for the barrier have not yet been selected; they will be finalized in the PRP's forthcoming removal design, which will be thoroughly reviewed by EPA and USACE.

11. If EPA Region 7 is willing to post incoming documents that it has yet to review, such as the EMSI pre-construction work plan (original & revised draft), why doesn't EPA Region 7 put comments it sends back to EMSI on its website, such as the June 6, 2014 letter referenced in the EMSI revised draft pre-construction work plan? If the issue is that EPA doesn't have time or resources to post the letter on its website, can the CAG have a paper copy to share with interested community members?

Answer: EPA agreed to post PRP submittals relating to the design and construction of the IB. Posting all correspondence between agencies and the PRP would be burdensome for EPA and overwhelming for the public. Posting of major submittals provides a better comprehensive summary of the work planned and approved. EPA did post its July 1, 2014 approval letter in order to keep the public informed about the status of the revised work plan. If the CAG would like a copy of the June 6, 2014 comment letter, EPA can provide it.

12. What is the exact status of the isolation barrier? Is EPA Region 7 reviewing a draft Work Plan for the isolation barrier? What documents is EPA Region 7 currently reviewing other than the draft pre-construction work plan (and revised version) submitted by EMSI. Other than USACE, have other government agencies (local, state, federal) reviewed the pre-construction work plan? Are there documented comments from other government agencies that the CAG can review?

Answer: EPA expects to make a formal decision on the alignment of the barrier soon.. Once this decision is made, EPA will direct the PRPs to complete the Phase 2 GCPT and coring work. EPA will also promptly negotiate a new Order with the PRPs that will compel them to produce a design for the barrier installation, obtain EPA approval for the design (with USACE's assistance), and install the barrier. No other documents are currently under review. The St. Louis Airport Authority reviewed and approved the Bird Hazard Monitoring and Mitigation Plan contained in the Isolation Barrier Pre-Construction work plan. The Missouri DNR reviewed the draft isolation barrier work plan and submitted comments to the PRPs. As STLAA worked directly with Republic on this Plan without EPA's direct involvement, the CAG should request STLAA's comments on this Plan directly from STLAA.

13. According to the March 2014 EPA Office of Research and Development report titled "Observations on the EMSI report: Evaluation of Possible Impacts of a Potential Subsurface Smoldering Event on the Record of Decision – Selected Remedy for Operable Unit-1 at the West Lake Landfill, Dated January 14, 2014", Items 5 and 6, specifically state that "A SSE may result in increased emissions of radon and other contaminants in the air and groundwater, even with annual inspections and proper maintenance of designs discussed in the 2008 ROD and 2011 SFS." and "As stated earlier, if a SSE occurs, short-term risks may be present even with proper

cap design, inspection and maintenance.” In light of these statements and a written statement from Missouri DNR that the occurrence of a spontaneous SSE in OU1 cannot be ruled out even with a Cap in place, is the installation of a Cap as specified in the 2008 ROD and 2011 SFS still under consideration? If yes, please address the differences between the EPA Office of Research and Development’s conclusion regarding the inability of said Cap to protect our community and Region 7’s reasoning as to why it would be OK to install said Cap.

Answer: EPA is still in the process of re-evaluating remedial alternatives for OU-1, including capping the landfill wastes. All of the potential remedial alternatives have drawbacks, and it would be inappropriate for EPA to exclude any alternative from consideration based on a single issue. The statements by ORD referenced in this question are an acknowledgement that, due to the unpredictable nature of a possible future SSE, no remedy can be guaranteed to prevent all risks or exposures. It is important to note that other potential remedial alternatives under consideration, including excavation, also have the potential to create exposures such as emissions of radon and other contaminants in the air and groundwater.